

REMARKS

In the Office Action dated October 13, 2010, the Examiner rejects claims 1, 3, 5, 11-15, 17, 19 and 20 under 35 U.S.C. § 102(e) and rejects claims 1, 3-15 and 17-20 under 35 U.S.C. §103(a). With this Amendment, Applicants have amended claims 1; 3, 12-15 and 17. Claims 19 and 20 are canceled. Claims 21-24 are new. After entry of this Amendment, claims 1, 3-15, 17, 18 and 21-24 are pending in the Application. Reconsideration of the Application based on the amendments and remarks below is respectfully requested.

Support for the amendments to the independent claims can be found in canceled claims 19 and 20 as well as the specification in at least paragraphs [0043] and [0044] and FIGS. 2 and 3. Support for the amendment to claim 12 and new claims 21-24 can be found in at least paragraphs [0043], [0044] and [0046] and FIG. 2. Support for the amendments to claim 3 can be found in at least paragraph [0067].

Response to rejections under 35 U.S.C. §102(e)

The Examiner rejects claims 1, 3, 5, 11-15, 17, 19 and 20 under 35 U.S.C. § 102(e) as being anticipated by Nagayama et al. (US 2005/0208347). Claims 19 and 20 are canceled. Independent claims 1, 13 and 14 all now include the following limitation: a first pair of conductive bodies 204B, 204C located in the one of the positive-electrode layer, the negative electrode layer and electrolyte layer having the discharge circuit 210, wherein one 204B of the first pair is in contact with one side of the discharge circuit and another 204C of the first pair is in contact with an opposing side of the discharge circuit 210; and a second pair of conductive bodies 204A, 204D, wherein one 204A of the second pair of conductive bodies is in an adjacent layer to the discharge circuit 210 and another 204D of the second pair is in another adjacent layer to the discharge circuit 210 such that each of the second pair of conductive bodies 204A, 204D is vertically aligned with a different one of the first pair of conductive bodies 204B, 204C when the layers are stacked. Independent claim 17 similarly includes a first pair of conductive bodies located in the one of the positive-electrode layer, the negative-electrode layer and electrolyte layer having the means for balancing, wherein each of the first pair is in contact with the means for balancing, and a second pair of conductive bodies, wherein one of the second pair of

conductive bodies is in an adjacent layer to the means for balancing and another of the second pair is in another adjacent layer to the means for balancing such that each of the second pair of conductive bodies is vertically aligned with a different one of the first pair of conductive bodies when the layers are stacked.

Independent method claim 15 now describes stacking a collector having a positive-electrode layer with a conductive body on one surface of the collector and a negative-electrode layer having another conductive body on an opposing surface of the collector, with an electrolyte layer that exchanges ions between the positive-electrode layer and the negative-electrode layer, the electrolyte layer having a discharge circuit therein, wherein the discharge circuit is contacted on opposing sides with additional conductive bodies in the electrolyte layer and electrically balances charged conditions of adjacent bipolar electrodes to form each electric cell of the plurality of electric cells, and wherein stacking the collector with the positive-electrode layer and negative-electrode layer with the electrolyte layer occurs such that each of the conductive bodies in the electrolyte layer aligns with a different conductive body in adjacent layers.

Nagayama et al. fails to disclose at least these elements required by each of these independent claims. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Furthermore, each and every element must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). Accordingly, the subject matter of claims 1, 13-15 and 17, and claims 3, 5, 11 and 12 by their dependency, is not anticipated by Nagayama et al. Applicants submit that these claims are allowable over the cited reference.

Response to rejections under 35 U.S.C. §103(a)

The Examiner rejects claim 4 under 35 U.S.C. §103(a) as being unpatentable over Nagayama et al. as applied to claim 1 above, and further in view of Einthoven et al. (US 2003/0205775). Claim 4 depends from claim 1 to include all of the limitations therein. As explained above, Nagayama et al. fails to teach or suggest at least one element of claim 1.

Einthoven et al. also does not teach or suggest the elements recited above. Accordingly, the combination of the two fails to suggest to one skilled in the art the subject matter of claim 1 and claim 4 by at least its dependency. Applicants submit that claim 4 is not rendered obvious by the cited combination, and claim 4 is allowable over the cited references.

The Examiner rejects claims 6-10 and 18 under 35 U.S.C. §103(a) as being unpatentable over Nagayama et al. as applied to claim 1 above, and further in view of Horie et al. (US 2001/0019794). Claims 6-10 and 18 depend from claim 1 to include all of the limitations therein. As explained above, Nagayama et al. fails to teach or suggest at least one element of claim 1. Horie et al. also does not teach or suggest the conductive bodies as recited in claim 1. Accordingly, the combination of the two references fails to suggest to one skilled in the art the subject matter of claim 1 and its dependent claims. Due at least to their dependency on claim 1, the subject matter of claims 6-10 and 18 is not rendered obvious by the cited combination. Thus, claims 6-10 and 18 are allowable over the cited references.

The Examiner rejects claims 1, 3, 5, 11-15, 17, 19 and 20 under 35 U.S.C. §103(a) as being unpatentable over Hisamitsu et al. (US 2004/0038123) in view of Nakanaga et al. (JP 02044660, see English-language abstract). Each of the independent claims has been amended as described above.

Hisamitsu et al. fails to teach or suggest at least the elements reproduced above. Nakanaga et al. also fails to teach or suggest at least the elements reproduced above. As both Nakanaga et al. and Hisamitsu et al. both fail to disclose or suggest at least the same elements, the combination of Hisamitsu et al. and Nakanaga et al. fails to suggest to one skilled in the art the subject matter of the independent claims. Applicants submit that these claims are in condition for allowance. In addition, claims 3, 5, 11, 12, 19 and 20 are also allowable at least due to at least their dependency on claim 1.

The Examiner rejects claim 4 under 35 U.S.C. §103(a) as being unpatentable over Hisamitsu et al. in view of Nakanaga et al. as applied to claim 1 above, and further in view of

Einthoven et al. Claim 4 depends from claim 1 to include all of the limitations therein. As explained above, the combination of Hisamitsu et al. and Nakanaga et al. fails to teach or suggest at least one element of claim 1. Einthoven et al. also does not teach or suggest a discharge circuit and conductive bodies as recited in the claim. Accordingly, the combination of the three references fails to suggest to one skilled in the art the subject matter of claim 1. Applicants submit that claim 1 is allowable over the cited references. Due at least to its dependency on claim 1, claim 4 is also allowable over the cited references.

The Examiner rejects claims 6-10 and 18 under 35 U.S.C. §103(a) as being unpatentable over Hisamitsu et al. in view of Nakanaga et al. as applied to claim 1 above, and further in view of Horie et al. Claims 6-10 and 18 depend from claim 1 to include all of the limitations therein. As explained above, the combination of Hisamitsu et al. and Nakanaga et al. fails to teach or suggest at least one element of claim 1. Horie et al. also does not teach or suggest a discharge circuit with conductive bodies structured as recited in claim 1. Accordingly, the combination of the three references fails to suggest to one skilled in the art the subject matter of claim 1. Applicants submit that claim 1 is allowable over the cited references. Due at least to their dependency on claim 1, claims 6-10 and 18 are also allowable over the cited references.

New Claims

New claims 21-24 recite the same limitation as amended claim 12, namely that each electric cell further comprises a conductive sealing material printed on an outermost periphery of each of the positive-electrode layer, the negative-electrode layer and electrolyte layer. Applicants submit that the cited references do not teach or suggest this limitation. Accordingly, claims 21-24 are in condition for allowance.

Conclusion

It is submitted that this Response has antecedent basis in the Application as originally filed, including the specification, claims and drawings, and that this Amendment does

not add any new subject matter to the application. Reconsideration of the Application is requested. It is respectfully submitted that this Application is in suitable condition for allowance; notice of which is requested.

If the Examiner feels that prosecution of the present Application can be expedited by way of an Examiner's amendment, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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